

1990-02-08-0A-PEA

February 1983

Waimanalo Gravity Sewer System **FILE COPY**

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
P. O. BOX 621
HONOLULU, HAWAII 96809

DEPARTMENT MASTER APPLICATION FORM

FOR DLNR USE ONLY

Reviewed by _____
Date _____
Accepted by _____
Date _____
Docket/File No. _____
180-Day Exp. _____
EIS Required _____
PH Required _____
Board Approved _____
Disapproved _____
Well No. _____

(Print or Type).

I. LANDOWNER/WATER SOURCE OWNER
(If State land, to be filled in by Government Agency in control of property)

Name Department of Hawaiian Home Lands

Address P.O. Box 1879
Honolulu, HI 96805

Telephone No. (808) 548-6450

SIGNATURE *Ngaliu L. Drake*
Date December 7, 1989
Ngaliu L. Drake, Chairman

II. APPLICANT (Water Use, omit if applicant is landowner)

Name _____

Address _____

Telephone No. _____

Interest in Property _____

(Indicate interest in property; submit written evidence of this interest)

*SIGNATURE _____

Date _____

*If for a Corporation, Partnership, Agency or Organization, must be signed by an authorized officer.

III. TYPE OF PERMIT(S) APPLYING FOR

- () A. State Lands
(x) B. Conservation District Use
() C. Withdraw Water From A Ground Water Control Area
() D. Supply Water From A Ground Water Control Area
() E. Well Drilling/Modification

IV. WELL OR LAND PARCEL LOCATION REQUESTED

District _____

Island _____

County _____

Tax Map Key _____

Area of Parcel _____

(Indicate in acres or sq. ft.)

Term (if lease) _____

V. Environmental Requirements

Pursuant to Chapter 343, Hawaii Revised Statutes, and in accordance with Title 11; Chapter 200, Environmental Impact Statement Rules for applicant actions, an Environmental assessment of the proposed use must be attached. the Environmental assessment shall include, but not be limited to the following:

- (1) Identification of applicant or proposing agency;
- (2) Identification of approving agency, if applicable;
- (3) Identification of agencies consulted in making assessment;
- (4) General description of the action's technical, economic, social, and environmental characteristics;
- (5) Summary description of the affected environment, including suitable and adequate location and site maps;
- (6) Identification and summary of major impacts and alternatives considered, if any;
- (7) Proposed mitigation measures, if any;
- (8) Determination;
- (9) Findings and reasons supporting determination; and
- (10) Agencies to be consulted in the preparation of the EIS, if applicable.

VI. Summary of Proposed Use (what is proposed)

INFORMATION REQUIRED FOR ALL USES

I. Description of Parcel

- A. Existing structures/Use. (Attach description or map).
- B. Existing utilities. (If available, indicate size and location on map. Include electricity, water, telephone, drainage, and sewerage).
- C. Existing access. (Provide map showing roadways, trails, if any. Give street name. Indicate width, type of paving and ownership).
- D. Vegetation. (Describe or provide map showing location and types of vegetation. Indicate if rare native plants are present).
- E. Topography; if ocean area, give depths. (Submit contour maps for ocean areas and areas where slopes are 40% or more. Contour maps will also be required for uses involving tall structures, gravity flow and other special cases).
- F. If shoreline area, describe shoreline. (Indicate if shoreline is sandy, muddy, rocky, etc. Indicate cliffs, reefs, or other features such as access to shoreline).
- G. Existing covenants, easements, restrictions: (If State lands, indicate present encumbrances.).
- H. Historic sites affected. (If applicable, attach map and descriptions).

II. Description: Describe the activity proposed, its purpose and all operations to be conducted. (Use additional sheets as necessary).

III. Commencement Date: _____

Completion Date: _____

IV. TYPE OF USE REQUESTED (Mark where appropriate)

- 1. Permitted Use (exception occasional use);
DLNR Title 13, Chapter 2, Section _____; Subzone _____.
- 2. Accessory Use (accessory to a permitted use);
DLNR Title 13, Chapter 2, Section _____; Subzone _____.
- 3. Occasional Use: Subzone _____.
- 4. Temporary Variance: Subzone _____.
- 5. Conditional Use: Subzone _____.

Area of Proposed Use _____
(Indicate in acres or sq. ft.)

Name & Distance of Nearest Town or Landmark _____

Boundary Interpretation (If the area is within 40 feet of the boundary of the Conservation District, include map showing interpretation of the boundary by the State Land Use Commission).

Conservation District Subzone _____
County General Plan Designation _____

V. FILING FEE

1. Enclose \$50.00. All fees shall be in the form of cash, certified or cashier's check, and payable to the State of Hawaii.
2. If use is commercial, as defined, submit additional public hearing fee of \$50.00.

INFORMATION REQUIRED FOR CONDITIONAL USE ONLY

I. Plans: (All plans should include north arrow and graphic scale).

- A. Area Plan: Area plan should include but not be limited to relationship of proposed uses to existing and future uses in abutting parcels; identification of major existing facilities; names and addresses of adjacent property owners.
- B. Site Plan: Site plan (maps) should include, but not be limited to, dimensions and shape of lot; metes and bounds, including easements and their use; existing features, including vegetation, water area, roads, and utilities.
- C. Construction Plan: Construction plans should include, but not be limited to, existing and proposed changes in contours; all buildings and structures with indicated use and critical dimensions (including floor plans); open space and recreation areas; landscaping, including buffers; roadways, including widths; offstreet parking area; existing and proposed drainage; proposed utilities and other improvements; revegetation plans; drainage plans including erosion sedimentation controls; and grading, trenching, filling, dredging or soil disposal.
- D. Maintenance Plans: For all uses involving power transmission, fuel lines, drainage systems, unmanned communication facilities and roadways not maintained by a public agency, plans for maintenance shall be included.
- E. Management Plans: For any appropriate use of animal, plant, or mineral resources, management plans are required.
- F. Historic or Archaeological Site Plan: Where there exists historic or archaeological sites on the State or Federal Register, a plan must be submitted including a survey of the site(s); significant features; protection, salvage, or restoration plans.

II. Subzone Objective: Demonstrate that the intended use is consistent with the objective of the subject Conservation District Subzone (as stated in Title 13, Chapter 2).

STATE OF HAWAII
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CONSERVATION DISTRICT USE PERMIT APPLICATION
PERMIT APPLICATION PAGE 2 REQUIREMENTS

ITEM V. Environmental Requirements

- A. Applicant: Department of Hawaiian Home Lands
State of Hawaii
- B. Approving Agency: Governor
State of Hawaii
- C. Title of Project: Waimanalo Gravity Sewer System, Section 5
- D. Agencies Consulted:
 - a. Department of Hawaiian Homes Lands, State of Hawaii
 - b. Department of Health Drinking Water Section, State of Hawaii
 - c. Department of Land and Natural Resources, State of Hawaii
 - d. Department of Public Works, Division of Wastewater
Management City and County of Honolulu
- E. Project Description: The project involves the design and construction of a gravity sewage collection and sewage pumping system to serve a portion of the Hawaiian Homes Lands residential lots in Waimanalo, Oahu, Hawaii. As part of the project, a sewage pump station is required, and is proposed to be located at the northwest corner of TMK 4-1-17 Parcel 21. Access to the site is through a portion of TMK 4-1-17 Parcel 1. Parcels 1 and 21 are within a State designated Conservation District, Subzone - General.
- F. Environmental Assessment:
 - 1. The existing 59 HHL lots to be served by the project is the last remaining un-sewered HHL lots in the Waimanalo subdivision. Accordingly, the objectives of this project are

to eliminate the cesspool disposal method from the existing HHL subdivision and to allow for future collection and conveyance of sewage from off-site areas to the east.

2. Environmental Setting:

a. Location: The Waimanalo area is located on the southeastern corner of the Island of Oahu as shown in Figure 1. The project area is shown in Figures 2, 3, and 4 and is bounded by Kalanianaʻole Highway on the north and by the Koolau mountain range to the south.

b. Climate: The climate of that area is generally typical of Windward Oahu, with mild annual average temperatures of about 74 degrees F and annual average rainfall of about 40 inches. Prevailing winds in the area are northeasterly tradewinds which occur approximately 80 percent of the time. Overall, the climate is considered to be comfortable because of the cooling effect of the tradewinds.

c. Geology: In general, a layer of permeable sands and limestones extending 20 to 30 feet immediately below the ground surface overlays alternate layers of impermeable alluvium and permeable layers of calcareous dune limestone and coral.

d. Topography: The overall topography of the area is variable and generally rises inland from the shoreline to the Koolau Mountain range.

e. Land use: The project area is within a residential area zoned by the State for urban use, and by the County for residential use, R-10. Areas seaward of Kalanianaʻole

Highway are zoned for parks use, and areas immediately inland of the HHL subdivision are zoned by the State for Conservation, and by the County for Preservation.

f. Flora and Fauna: Based on available information there are no endangered species of vegetation or wildlife inhabiting the project area or that will be endangered by the project.

g. Archaeological Features: There are no archaeological or historical sites existing within the project area or that will be endangered by the project. As shown in Figure 5, four historic and archaeological sites have been designated in the Waimanalo area. Three of the sites are farther than a mile away. The fourth site, Pahonu Turtle Pond, is across Kalanianaʻole Highway along the seashore, and will not be impacted by the project.

h. Flooding: During heavy rain storms large areas of Waimanalo flood because of the low-lying coastal plains and inadequate stream carrying capacities. However, the project area is not within the flood hazard areas, nor is it within the tsunami inundation area as delineated in U.S. Department of Housing and Urban Development Flood Insurance Maps. See Figure 6.

3. Approvals Required:

a. State of Hawaii Department of Hawaiian Home Lands-for project construction plans and specifications.

b. State of Hawaii, Department of Health-for wastewater collection and pumping facilities.

c. State of Hawaii, Department of Land and Natural Resources-
for Sewage Pump Station Site Conservation District Use
permit.

d. City and County of Honolulu, Department of Land
Utilization-for Special Management Area Permit.

e. City and County of Honolulu, Department of Public
Works-for construction of Wastewater collection and pumping
facilities.

4. Environmental and Economic Impacts:

a. Short Term Impacts: The short term impacts are all
associated with construction activities. Air quality,
increased traffic, construction noise, access, and
aesthetics may be temporarily impacted during construction.
However, the impacts are temporary and are not expected to
be significant because strict adherence to governmental
regulations and implementation of practical control
measures will confine and mitigate adverse impacts.

b. Long Term Impacts:

(1) The most important long term impact is the
discontinuation of sewage disposal by means of
cesspools.

(2) Design and construction of the sewage facilities
will involve the commitment of HHL funds, land area,
energy, materials, manpower and funding to operate and
maintain the facilities. However, elimination of the
cesspools is consistent with State Department of Health
policies and benefits the environment by eliminating

many potential sources of contamination and nuisance.

(3) The proposed improvements are not expected to encourage long term unplanned population growth nor economic development of the Waimanalo area because the project will serve only a small portion of an existing HHL subdivision. However, the sewage pump station will be sized to accommodate future off-site flows from a few existing private homes and a future limited HHL development to the east. Sewage service to those areas does not appear imminent and will depend on how quickly HHL completes their feasibility studies.

5. Alternate Considerations:

a. The no-action alternative is not acceptable in light of the State Department of Health's public health policies and priorities to eliminate cesspools; especially where municipal sewage treatment plants exist nearby, and where the project area is located above the State's Underground Injection Control line as is the situation for this project.

b. Utilization of individual wastewater treatment and disposal systems is also not acceptable for the same reasons presented above.

c. The proposed project is the most viable because:

(1) The project can be implemented quickly and completed in a timely manner.

(2) The project is consistent with State Department of Health policies and the City and County Department of Public Works Wastewater Management plans for the area.

d. Alternative sewage pump station locations and designs, sewer alignments, and service areas were considered, but the proposed project was determined to be the most feasible.

e. Assessment of Environmental Impacts:

The proposed project will not have any significant adverse impacts on the environment.

ITEM VI. Summary of Proposed Use: The Department of Hawaiian Home Lands (HHL), State of Hawaii is planning to design and construct a gravity sewer and sewage pumping system to serve a portion of the HHL residential lots in Waimanalo. A sewage pump station is proposed to be located at the northwest corner of TMK 4-1-17 Parcel 21. Access to the pump station is across TMK 4-1-17 Parcel 1. Parcel 1 and Parcel 21 are within a State designated Conservation District, and a Conservation District Use Permit is required. See Figure 3.

The proposed sewage pump station will collect sewage from the service area and pump it over a hill to a location where the sewage can flow by gravity to the existing Waimanalo Sewage Treatment Plant. The sewage pump station will be designed to meet the City and County of Honolulu's Department of Public Works Division of Wastewater Management Standards, and be operated and maintained by the same agency.

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CONSERVATION DISTRICT USE PERMIT APPLICATION
PERMIT APPLICATION PAGE 3 & 4 REQUIREMENTS

I. Description of Parcel: TMK 4-1-17 Parcels 1 and 21

- A. Existing Use: Vacant and used for animal grazing.
- B. Existing Utilities: None
- C. Existing Access: Kalaniana'ole Highway and Bell Street.
Kalaniana'ole Highway is a major asphaltic concrete paved roadway, about 50 feet wide, and owned by the State of Hawaii. Bell Street is a local HHL subdivision roadway which is paved with asphaltic concrete and is about 20 feet wide. See attached Figure 2.
- D. Vegetation: A variety of trees and grasses including honohono grass, Hilo grass, guava, lehua, koa, kiawe, coconut, koa haole, lantana, ilima, pili grass and Bermuda grass grow in the area. There are probably no rare plants in the vicinity of the proposed pump station site since the land is used for cattle, horse, goat and pig grazing.
- E. Topography: Topography in the area varies from flat to sloping. Ground elevations vary from around 8.5 to 11 in the flat areas and slope upward away from the coastal area at about 30 percent.
- F. Site is not in shoreline area.
- G. Existing Covenants: Land belongs to HHL and is presently leased to Fred Teixeira under HHL G.L. 181.
- H. Historic sites are not affected.

II. Description

A sewage pump station is proposed to be located in the northwest corner of TMK 4-1-17 parcel 21. The sewage pump station will be designed in conformance to the City and County of Honolulu Department of Public Works Division of Wastewater Management Standards and include the following: (See Site Plan)

- a. Gravity Sewers shall be of vitrified clay.
- b. Force Main shall be of Ductile Iron, cement lined and polywrapped.
- c. Sewage Pump Station:
 - (1) Designed to discharge the "future" peak sewage flow of 0.58 mgd or 403 gpm. Initial pumping capacity about 315 gpm.
 - (2) Substructure consisting of a dry pump room and wet well shall be of reinforced concrete. Wet well to be PVC lined.
 - (3) Superstructure shall be of concrete masonry units with built up roofing.
 - (4) Two (2) constant-speed pedestal mounted centrifugal non-clog pumps initially sized for 315 gpm and located in the dry pump room shall be provided. One pump shall be for operation while the second is for standby.
 - (5) Miscellaneous site work including fencing to secure the station, paved roadways and driveways to improve accessibility and landscaping shall be provided.
- d. Auxiliary equipment shall include:
 - (1) Sump pumps in dry pump room to remove washdown water and access water from pump packing.
 - (2) Air exhaust equipment to provide 3 minutes air change.
 - (3) Flow meter shall be Venturi Tube type.

- (4) Motor Control center with indicating lights to control, show status of equipment, and record information.
- (5) Telemetering of various signals as required by the Division of Wastewater Management.
- e. Standby emergency electrical generator.

III. Anticipated Commencement Date: June 1990

Completion Date: June 1991

IV. Type of Use Requested:

- A. Conditional Use: Sub-zone General
- B. Area of Proposed Use: Approximately 0.5 Acres
- C. Nearest Town: Waimanalo Town is approximately 3 miles away.
- D. Boundary interpretation - See attached Tax Map Key 4-1-17.
- E. Conservation District Sub-zone - General
- County General Plan Designation - Preservation P-1.

INFORMATION REQUIRED FOR CONDITIONAL USE ONLY

I. Attached Drawings and Plans:

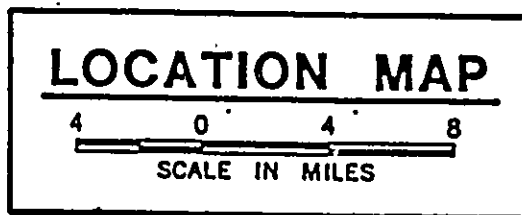
- Figure 1 Location Map
- Figure 2 Project Area
- Figure 3 TMK 4-1-17
- Figure 4 TMK 4-1-16
- Figure 5 Archaeological & Historic Sites
- Figure 6 HUD Flood Insurance Map

Site Plan and Preliminary Construction Plans

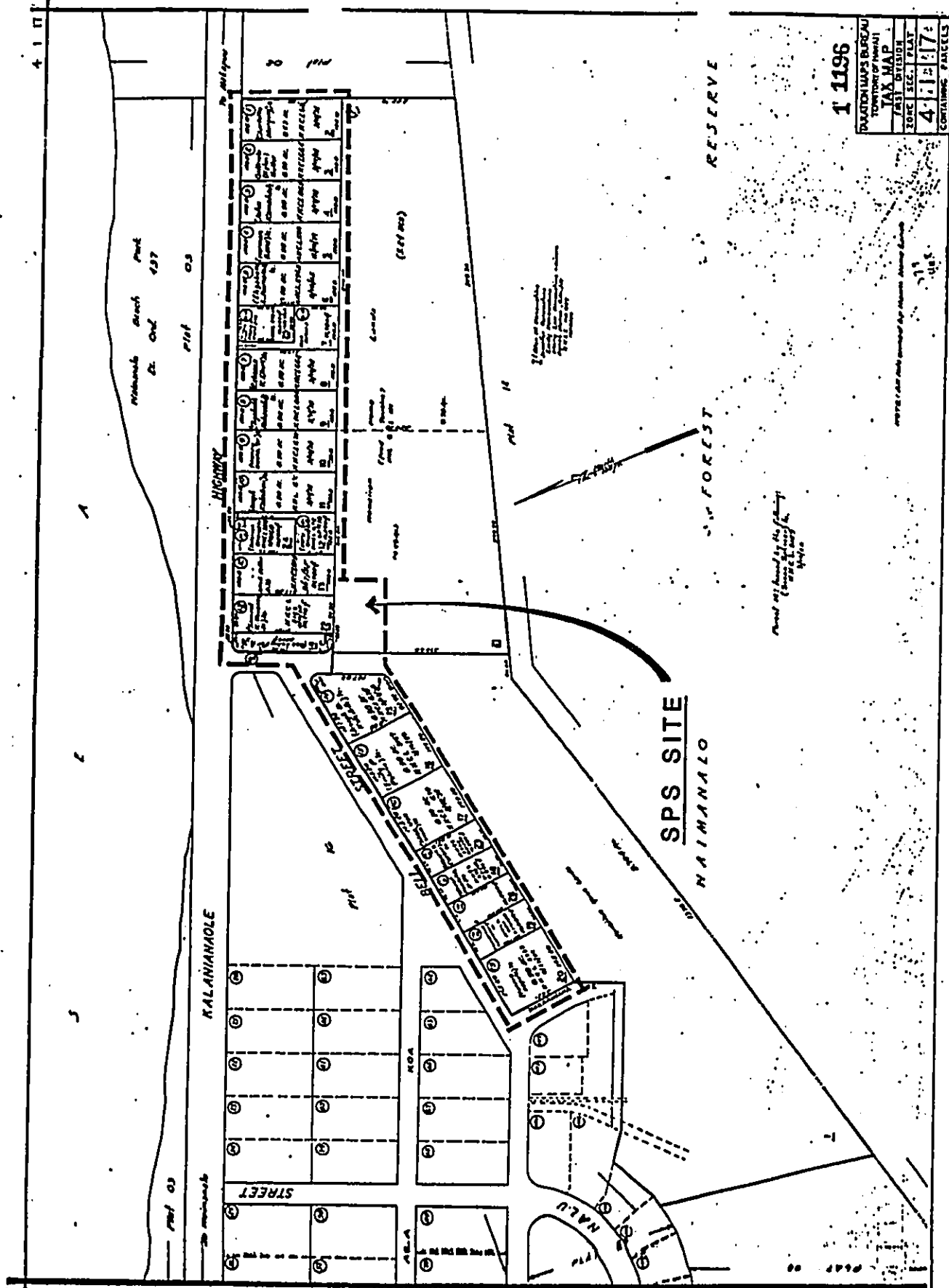
- II. Sub-zone Objective: The objective of Conservation District Subzone General (G) is to designate open space where specific conservation uses may not be defined, but where urban use would be premature. The location of the proposed sewage pump station at this particular site is consistent with the objectives of this subzone because the

specific site is relatively small (0.5 acres) and the remaining 19+ acres of conservation lands adjacent to the parcel will not be disturbed. The site is near the low point and center of the service area, and is a logical location for the pump station because excavation and the depth of the pump station will be minimized; the structural wall thicknesses below ground would be minimized; and consequent construction costs would be lower than at other locations.

The proposed sewage pump station will be operated and maintained by the City and County, and is not expected to have any significant adverse impact on the environment.



77.



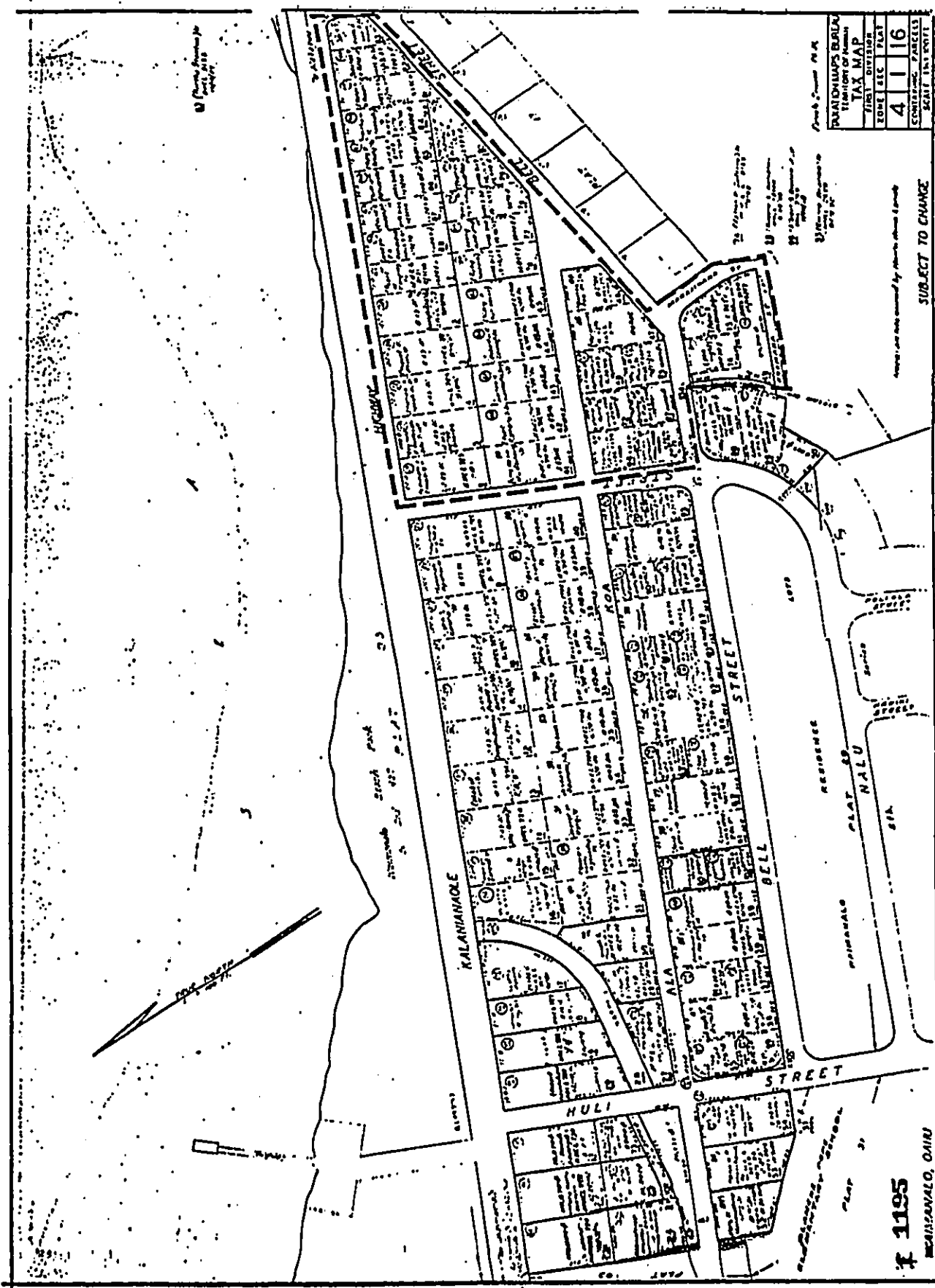


FIGURE 4

Archaeological & Historical Sites

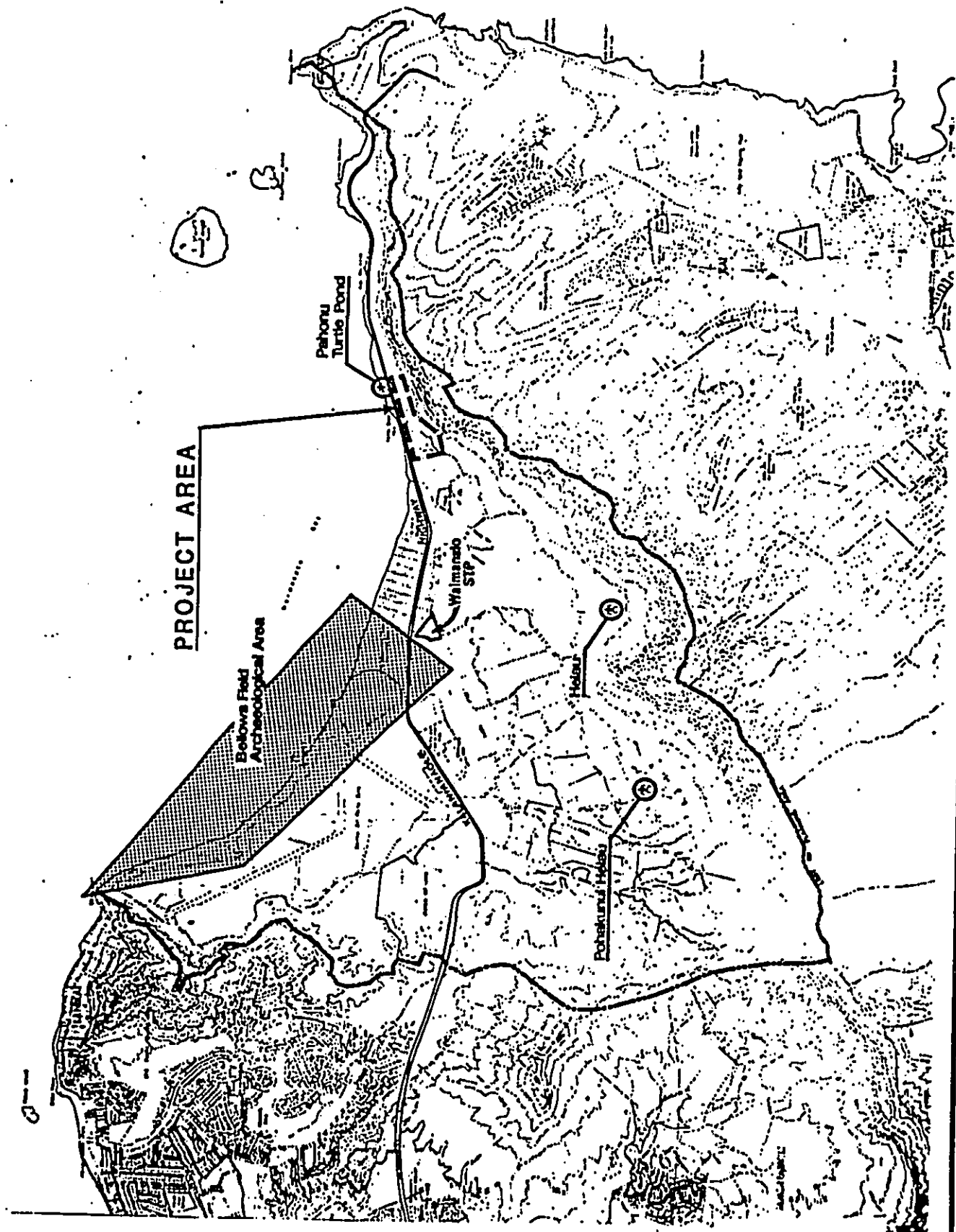


FIGURE 5

NATIONAL FLOOD INSURANCE PROGRAM

FLOODWAY

FLOOD BOUNDARY AND
FLOODWAY MAP

CITY AND COUNTY OF
HONOLULU, HAWAII

PANEL 95 OF 135
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
150001 0095 A

EFFECTIVE DATE:
SEPTEMBER 3, 1980



U.S. DEPARTMENT OF HOUSING
AND URBAN DEVELOPMENT
FEDERAL INSURANCE ADMINISTRATION



APPROXIMATE SCALE

1000 0 1000 FEET

WAIMANALO GRAVITY SEWERS

SECTION 5

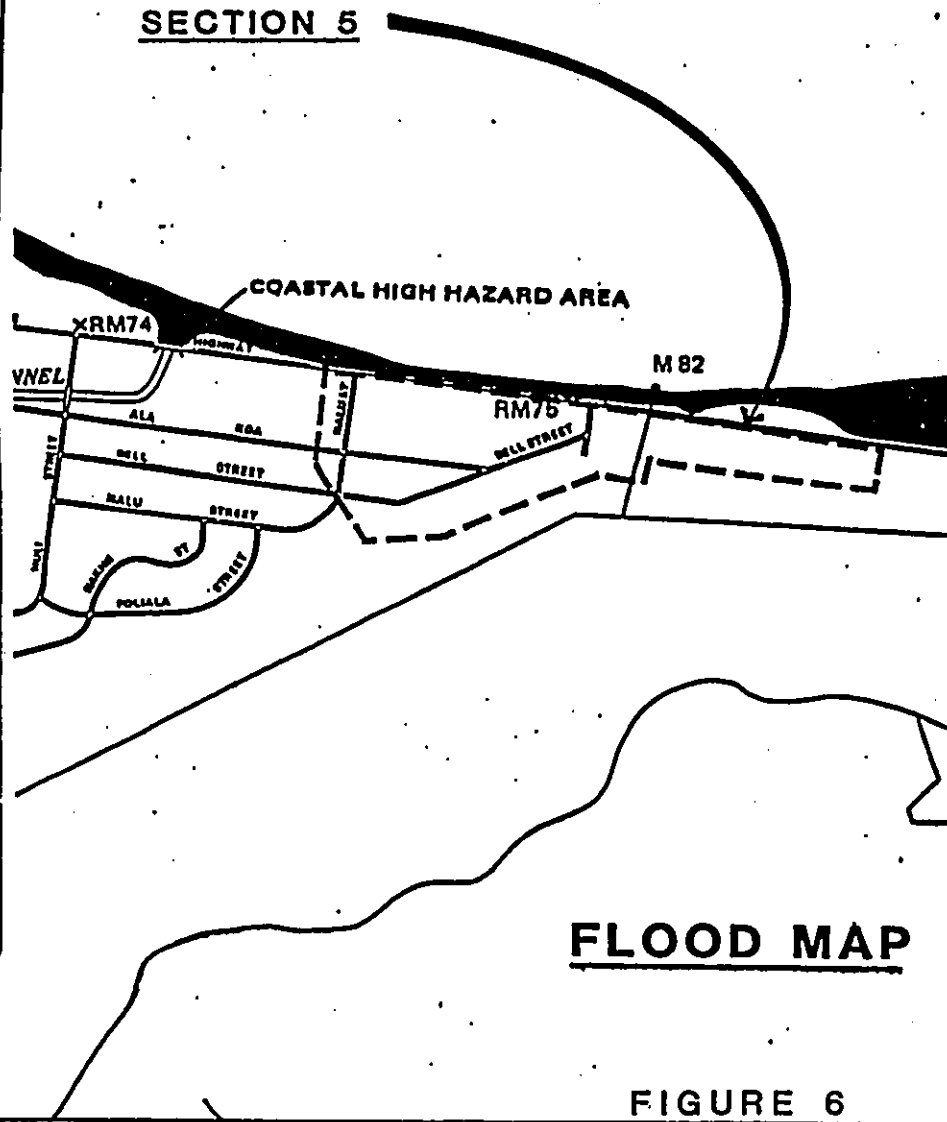


FIGURE 6